

Notice of Allowability

Application No.

09/918,694

Examiner

Raymond J. Bayerl

Applicant(s)

ARQUIE, LOUIS

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Application as filed, 30 July 2001.
2. ☒ The allowed claim(s) is/are 1 - 11.
3. ☒ The drawings filed on 30 July 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 12 Sept 2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

RAYMOND J. BAYERL
PRIMARY EXAMINER
ART UNIT 2173

6 Dec 2004

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

The Examiner has carefully considered applicant's independent claims 1, 6, 9 – 11, which are directed to "displaying connections in a system for displaying a network topology" (claims 1, 6, 9) or "displaying...lines on the display to connect the first and second nodes" (claims 10, 11).

In particular, the problem of an "obstructing node" is handled in the claimed invention, when "horizontal and vertical lines" (or "lines" in "a first direction" and "second direction" "not parallel with" the "first", claim 1) are originally chosen for the connection. A "chosen line" or a "crosspoint" are specified, so that the "connection" is routed around the "obstructing node", in the set of modified "lines" that form the "path". The variously-claimed solutions to the problem of rendering linked node diagrams without obstruction were not taught nor suggested by the prior art made of record.

Certainly, many prior art teachings can be found, as relate to connecting nodes with line segment links *per se*, as in the case of Melder et al. (US #6,784,902 B1) and Geddes et al. (US #5,596,704). However, though the illustrations in such references do show lines organized along two rectangular directions in the final diagrammatic design (this being particularly taught by Prakriya et al. (US #6,801,200 B1)), they do not contain such **explicit** details as in the claimed invention as to how the links are drawn to avoid obstruction.

This is not to say that there are not additional references that handle the problem of avoiding obstruction in depth, as can be seen in the IBM Technical Disclosure Bulletin concerning "PDQROUTE" (see attached form PTO-892 for full citation) and Smith (US #4,875,187).

However, even with such illustrations as the use of a re-routing CHANNEL around a BLOCKING ITEM in Smith's fig 3, this re-positioning of a "crosspoint" or a "chosen line" fails to teach or suggest the full procedure and application of geometric constraints that is followed in applicant's various claims.

In claim 1, the "chosen line" is specifically recited as intersecting a "selected line" that "is coupled to the first node". The best prior art reference Smith does not specifically search along a line that must emanate from one of the nodes. Claims 6, 9 – 11, on the other hand, differ patentably from Smith at least in "ensuring that the crosspoint occurs beyond a predetermined distance along a given line", something not found in the generalized finding of alternative CHANNEL paths in Smith, who does not place stipulations on minimum positioning distances.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

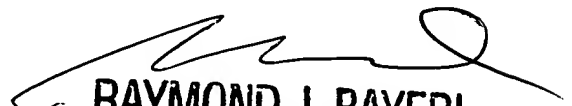
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond J. Bayerl whose telephone number is (571)

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272-4045. The examiner can normally be reached on M - F from 9:00 AM to 4:00 PM ET.

4. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca, can be reached on (571) 272-4048 thereafter. All patent application related correspondence transmitted by FAX **must be directed** to the central FAX number (703) 872-9306.

5. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.



RAYMOND J. BAYERL
PRIMARY EXAMINER
ART UNIT 2173

6 December 2004